

THE ST. LAWRENCE ROUTE AND THE PROPOSED NEW STEAMSHIP SERVICE.

The author, said to have been Edmund Burke, of "An Account of the European Settlements in America," published in England in 1757, ascribed the failure of France to establish a large sedentary population in Canada to a variety of causes, including the "bad navigation of the River St. Lawrence," which, he said, was an "evil incurable." The St. Lawrence was "quite frozen for almost half the year, and covered with thick exhalations and fogs for the greater part of the rest."

The dangers of the St. Lawrence had been much in evidence in England on the occasion of the tremendous disaster that befell Admiral Walker's expedition against Quebec in 1711. Eight of Walker's transports went ashore on the Egg Islands, near Pointe des Monts, and, according to his journal, 880 soldiers were drowned. The French said they counted 2,000 corpses on the beach, including those of a number of women, probably soldiers' wives. Charlevoix, the historian, who came to Canada nine years afterwards, put the loss of life at 3,000. The expedition proceeded no further than Pointe des Monts. General Hill, brother of Mrs. Masham, a favorite of Queen Anne, was in command of the military part, which consisted of seven British and two Massachusetts regiments, besides artillery; and was severely blamed in England for having turned back. He had a friend in Swift, who, in a letter to Stella, gave it as his opinion that "Mr. Hill and his admiral made wrong steps." "However," he said, rather than condemn Hill, "we lay it all to a storm." Walker laid it all to the dangerous navigation, while his friends blamed Paradis, a French-Canadian pilot, who had been captured and taken on board. Vetch

of Annapolis, a leading man in the expedition, threw the entire responsibility on Walker, who, against the advice of his officers and pilots, sailed to the north through a dense fog in the night. Vetch reminded Walker that, in 1690, Sir William Phips, with 70 sail, had reached Quebec at a later period of the year without accident, though not a man in the fleet had been there before.

In 1759, Wolfe's vessels also found their way to Quebec without accident, their skill in navigating the North Traverse, a dangerous place between Cap Tourmente and the lower end of the Island of Orleans, exciting the admiration of the French pilots. Sound-ing boats lay off on each side of the channel, with different coloured flags to guide the ships. "The enemy," wrote Vaudreuil to the French Minister, "passed 60 ships of war where we hardly dared to risk a vessel of 100 tons. Notwithstanding all our precau-tions," he added, "the English, without any accident, passed through the Traverse, by night as well as by day, their ships of 70 and 80 guns, and even many of them together."

Burke was nevertheless warranted in saying hard things of the St. Lawrence route. During the French regime, it was the scene of wrecks without number. The vessels of the period seldom exceeded 200 tons, and could be readily manoeuvred in the narrowest parts of the channel, but such recorded surveys as existed were often imperfect, and, worse still, there were no lights on the St. Lawrence and none in the Gulf or adjacent waters till 1734, when a lighthouse was built at Louisbourg. At certain points along the river, kettles filled with blazing pitch or pine knots were hung at night on the trees, but as a rule the King's ships, when coming up, were in the habit of anchoring till daylight. It is said that some of the charts were pur-posefully made wrong to mislead the English and New Englanders. Having no proper charts of the Atlantic, the earlier vessels carried *pilotes hauturiers*, or deep-sea

pilots, who brought them from France to the mouth of the St. Lawrence, where they were taken in charge by *pilotes coturiens*, or river and coast pilots from Quebec. Their approach was signalled to Quebec by semaphores on the heights along the south shore. Good river pilots were scarce. Abraham Martin, apparently a Scotchman, after whom the Plains of Abraham were called, was one of the first. Malartic, who served on the French side in 1758-60, says the Quebec officials took no precautions against the English in the Lower St. Lawrence, as they trusted to the difficulties of navigation and to the supposition that no efficient pilots could be found. The captain of the King's ship, *Le Chameau*, which was afterwards wrecked, wrote in 1720 that, while *la peur rend tout le monde pilote*, there was scarcely a regular pilot on the route who knew his business; those he had were nonplussed when anything out of the common occurred. At times, the French almost despaired of the St. Lawrence. It was once seriously suggested that Port Royal, in the Bay of Fundy, should be made the chief port of the Colony, and that a canal should be dug through the isthmus dividing the Bay from Northumberland Strait, and coasting vessels despatched that way to Quebec.

The season of navigation was only of three and a half or four months' duration, the vessels usually sailing from France for Quebec in June, and leaving Quebec for France in September. Scientific seamanship was, of course, unknown. The earlier navigators had but an imperfect knowledge of the sun's position, while their tables of declination were incorrect and their instruments crude. There was no method of determining the longitude beyond wild guessing on the basis of dead reckoning; nor had they any idea of the variation of the compass, or of the currents that beset them in coming from France, often by roundabout routes. It used to be said, half in jest, half in earnest, that the Rochelle captains in the Canadian trade really believed they could raise the wind by flogging the *mousse*.

On crossing the Grand Bank on the voyage to Quebec, the ship's crew engaged in rude ceremonies resembling those once in vogue on British vessels crossing the equator, a sailor arrayed as the Bonhomme Grand Banc collecting tribute from those entering his kingdom for the first time. Every ship from France carried brandy for the peltry traffic with the Indians, and the crew received liberal rations of it. There was always too much drinking on board. On lying to for the night, or while waiting for a fair wind on the way up the St. Lawrence, the ship's officers went ashore to shoot or buy game from the Indians, and the ecclesiastics and Government functionaries who were passengers landed to dine with a *curé* or local trading agent. Freights ranged, in modern currency, from \$10 to \$25 per ton in time of peace, and from \$50 to \$250 in time of war. In peace, insurance was usually below 10 per cent., in war as high as 80 or 90. Writing of affairs in the Seven Years' War, a merchant stated that a *barrigue* of rum worth 50 livres on board ship at Rochelle, cost 277 livres by the time it was warehoused at Quebec; and as credits were long and liable to be affected by the depreciated paper currency, he could not afford to sell it for less than 350 livres.

From 1688 down to the transfer to England, a period of 75 years, over 30 years were spent in war with England and the English Colonies. Then there were the wars with the Indians, which harassed the settler and diminished his slender exports. Scurvy and ship's fever were prevalent on the vessels. A single voyage to or from France lasted anywhere from 50 to 120 days. They had frequently to return from Canada without cargoes; stones from Quebec, employed as ballast, are said to be still standing in old buildings in the French Channel ports. Weird stories were told of sea monsters and land monsters, and of unearthly lights and voices in the Gulf. Admiral Walker believed that in winter the St. Lawrence was frozen solid from surface to bed, which would have

made the ice in places 180 feet thick. Voltaire knew more about Canada than most people, yet to him it was a "few acres of snow." The Rochelle merchants had a high opinion of the capabilities of the country, however, and their protest to the King against the cession of 1763, in which they were joined by the Chambers of Commerce of other French seaports, is a very remarkable document.

On account of the exceptionally painful circumstances attending them, some of the wrecks which took place in Canadian waters attracted world-wide attention. Father Crespel's vivid narrative of the sufferings of those on board the sloop *La Renommée*, which was stranded on Anticosti in November, 1736, relief not reaching them till May, was translated into English, German and Italian. The wreck of the *Auguste*, carrying people from Canada to France, after the Colony had been as good as lost, 114 souls perishing on the Cape Breton coast, was one of the most pathetic tragedies of the sea. The horrors of Sable Island, including the murderous doings of the wreckers, were embodied in tales and ballads which likewise contributed to give the St. Lawrence route an evil name; and, at a later day, when some thousands of Irish emigrants died of pestilence on the way to Quebec, that bad impression was confirmed.

It is easy to understand, without going further, why, on the transfer of Canada to England, a good deal was said by English merchants about the necessity of improving the route. The English vessels were larger than the French, and so the wrecks increased in number and cash loss. Between 1776 and 1783, 60 took place in the river alone. In 1785 the London merchants offered to place buoys in the North Traverse if the local authorities would maintain them, which they agreed to do. But the energies of the Government were soon absorbed in the American Revolution, and, when it was over, military roads had to be built in Upper and Lower Canada, after which, at an interval,

came the era of military canals, followed by the era of railways, and then by the enlargement of the canals for commercial ends.

The commercial policy of England was paternal and preferential. Canadian-built ships were admitted to the British registry free, while foreign-built were excluded, and Canadian timber was allowed to enter the British market at a duty considerably below that imposed on Baltic. Accordingly, the practice prevailed at Quebec of knocking ships together in a loose fashion and sending them to England for the purpose of obtaining free entry for the timber of which they were composed. Many of these ramshackle craft came to grief on the voyage out. A report from Trinity House, Quebec, stated that from 1840 to 1849, 238 wrecks had occurred in a total of 12,600 vessels leaving Quebec. How many were "timber dummies" and how many ships got up at Quebec to sell rather than to sail, was not shown, but the record went to blacken the St. Lawrence.

The Navigation Laws were in force till 1849, and the monopoly enjoyed by British bottoms was, of course, abused. Vessels quite unfit to face the Atlantic were put in the Canadian trade, and a large percentage lost. Again, most of the incoming ships came in ballast; this, with the onerous insurance rates, caused ocean rates outward to be higher than at New York. The upshot was that the poorer sort of vessels were left unchartered till late in the season, when, as a Trinity House writer said, "they perished on our coasts as they would have perished elsewhere under similar circumstances." On the repeal of the Navigation Laws, a better class of sailing ships began to frequent Quebec, and by that time steam had been introduced.

The British Admiralty carried on surveys in the St. Lawrence, in the Gulf and on the coasts of Nova Scotia and Newfoundland. The celebrated navigator, Captain Cook, took a hand in the work; he had served in Wolfe's expedition, and in 1764 began a survey of

Newfoundland, which is noted for its minute accuracy. After him, the surveyors best known in Canada were Orlebar, Shortland and Bayfield. Bayfield's "Sailing Directions for the Gulf and River St. Lawrence," based chiefly on the survey of 1829, are still in use. Whilst considering the St. Lawrence route as, on the whole, a dangerous one at that time, he declared that "erroneous charts, want of knowledge of the direction and strength of the tides and currents, and a false variation of the compass," were largely to blame for the frequent shipwrecks.

Upper and Lower Canada were united under one government in 1841. In 1844, the work of deepening the channel between Quebec and Montreal was commenced. It has been prosecuted almost without interruption to the present day, with the result that Montreal, which is 1,000 miles from the Atlantic, 250 from salt water and 80 above the nearest tidal influences, has been transformed into a port capable of receiving all but the very largest ocean vessels. Thirty miles of shoals had to be dealt with, and a submerged canal, 17 miles in length, built in Lake St. Peter. A channel 30 feet deep and from 300 to 500 feet wide has now been obtained. The cost of the undertaking to date has been \$10,000,000. The quantity of dredged material handled since 1844 exceeds 45,000,000 cubic yards.

The Canadian postal service was managed by the Imperial authorities from 1763 to 1851. As late as 1820, there were only fifty post offices between Amherstburg and Prince Edward Island. In 1787 a monthly mail was established in summer between Falmouth, Halifax and New York. The vessels were usually ten-gun brigs; several were lost at sea. Haldimand, before this, had urged, without avail, the establishment of a direct service between Quebec and England. From Halifax, the mails were forwarded to Quebec by way of St. John, N. B., Fredericton, Great Falls, Temiscouata and the Portage at the Rivière des Caps, a distance of 800 miles. In winter the packets

did not land at Halifax, but went direct to New York, whence the mails were sent to Quebec via Albany and Montreal. A mail for England was despatched from Quebec to New York once a fortnight in summer and once a month in winter to be put on board the first packet-boat for Falmouth. This arrangement continued for many years.

Shortly after the introduction of steam, Mr. Joseph Howe wrote to Lord Glenelg that the slow and inefficient ten-gun brigs should give place to steam vessels like the *Sirius*, which he had encountered while crossing the Atlantic. Mr. Samuel Cunard, of Halifax, came on the scene, and the result was the adoption of a contract between the Imperial Government and the embryo Cunard Company for the carriage of mails twice a month between Liverpool, Halifax and Boston—New York was subsequently added—with a side service from Pictou, N. S., to Quebec in summer. This side service was, however, soon dropped. The first Cunarder to sail from Liverpool to Halifax and Boston was the *Britannia*, July 4, 1840. The Company received a substantial subsidy, which was augmented at a later date to £186,000 a year.

The people of Upper and Lower Canada felt that this state of things was scarcely fair, that England was building up Boston and New York in preference to Quebec and Montreal. Their newspapers quoted Mr. Howe's letter in which he had said that "if Great Britain is to maintain her footing upon the North American Continent, she must, at any hazard of increased expenditure, establish a line of rapid communication with the Provinces, through channels exclusively British and inferior to none in security and expedition;" and asked why this doctrine should not apply to the St. Lawrence route as well as to Halifax, especially as the bulk of Her Majesty's subjects in British America were found in the two Provinces which the St. Lawrence served. It was contended that the subsidy to the Cunards was a violation of the Free Trade prin-

ciples which had recently been embraced by England to the injury of Canada, the preferential duties having been abolished. Lord Colchester, the Imperial Postmaster-General, stated in a letter to the Lords of the Treasury in 1858, when the Cunard contract was being renewed, that the Company received £53,000 a year more from the Imperial treasury than the treasury derived from the ocean postage. It was held, therefore, that this £53,000 was a bounty, pure and simple. The chief point was that the subsidy to the Cunard line together with the subsidies paid by the United States Government to the Collins and other American steamers, had the effect of cheapening ocean rates on freight to and from New York, which, of course, brought about the diversion of ocean-going traffic from the St. Lawrence. The railway bonding system was established in 1855, and the merchants of Upper Canada found it cheaper to import and export through New York than through Quebec. Again, it was said that by bonusing the Cunards, the Imperial Government was enabling them to carry British emigrants at a low rate past Canada to the United States; no passenger steamers ran to Quebec, and the better class of emigrants avoided the sailing ships, which, besides being slow, often harboured disease. It was shown that the Imperial Government was giving subsidies to vessels sailing to Australia and the West Indies, and the question was asked why Canada should not merely be overlooked in that respect, but injured by the subsidies paid to the Cunard line for running to American ports. It was deemed particularly hard that she should be treated in this fashion after she had spent so much in developing trade by the St. Lawrence through the construction of canals and railways designed to convey freight to Montreal and Quebec.

The case was briefly stated by Sir Edmund Head in a letter to the Imperial Government, 1856, but a more elaborate presentation was made by Sir Alex-

ander Galt, Inspector-General (Finance Minister) of the Province, to the Colonial Office, 1858. Sir Alexander observed that the Province had already spent no less than £7,000,000 on canals and railways, and was now anxious to reduce ocean rates on the St. Lawrence to a par with those at New York:

"But," he continued, "it has been conclusively shown by the evidence taken before Parliamentary Committees in Canada, that the large subsidies paid by the British and United States Governments to their respective lines of steamships have operated as a direct bounty to the ports of New York and Boston, reducing freights to and from them, and so far defeating the object of Canada and drawing Provincial trade mainly into American channels."

The Province of Canada had not been consulted when the original contract with the Cunards had been framed, but had expected to be when the contract came up for renewal. In this, however, she had been disappointed:—

"The Canadian public will therefore learn with much feeling and profound regret that it has pleased Her Majesty's Government to renew the contract till 1867, without any opportunity having been afforded to the Government of Canada to urge such arrangements as would have been conducive to the prosperity of this Colony. The line now subsidized by the British Government, although touching fortnightly at Halifax, is essentially an American line, and directly prejudicial to Canada. It is, in fact, wholly devoted to the trade between the United Kingdom and the United States, offering a direct bounty to the United States ports of New York and Boston against the British Colonial ports in the St. Lawrence, and placing the Mother Country in the invidious position of fostering foreign interests in preference to those of her own Colonial subjects."

In July, 1859, Sir John Rose, a member of the Administration, was sent to England to urge the importance of subsidizing the Canadian line, but met with no success. He appeared before a Select Committee on Packet and Telegraphic Service of the British House in 1860, and wrote to the Colonial Secretary reciting the foregoing facts in detail. He showed that the avowed purpose of the subsidy to the Cunards had been "to assist in the maintenance of a regular service between Great Britain and her North American Dependencies," and, to secure that end, the Cunards had

called at Halifax and conducted a branch service from there to Quebec. When the Cunards resolved to give up the branch service, owing to its heavy cost, the Canadian Government acquiesced; nor did it complain when they ceased to call at Halifax on the ground that, in consequence of the absence of railway communication between Halifax and the Province of Canada, the passenger and freight traffic afforded by that port was very meagre. When, however, the Grand Trunk Railway was completed from the Atlantic seaboard to Sarnia, the case assumed an entirely different aspect, and the Canadian Government felt that since the Cunards were still ostensibly subsidized to promote a closer connection between Great Britain and her North American Colonies, it ought at least to have been consulted when the time came for renewing the contract. Assurances in this sense had been given by the British Government, but the Cunards managed to obtain a renewal in advance of the proper time on the plea that they proposed to strengthen their line, and that a new contracts would enable them to do so on advantageous terms. The Select Committee of 1860 corroborated Sir John's statements, showed at some length that Canada had a substantial grievance, and observed that "Great Britain and her Colony present the spectacle of competing against each other by maintaining rival subsidised lines."

When Mr. Cunard obtained his first contract, there was but one other tender, which was higher than his. The Imperial authorities were most anxious at that time to establish a steamship service on the Atlantic, fearing lest the Americans, who had been operating steamers on their inland waters for years, and who then possessed a splendid mercantile fleet on the ocean, should anticipate them. On seeking a renewal of his contract with an increased subsidy, and on various other occasions, Mr. Cunard made a point of enlarging upon the danger to British commerce that must arise if England permitted the Americans, who by this time were subsidis-

ing the Collins line of steamers, to cripple or oust his line by State-aided competition. All agreed that the Cunard service was remarkably efficient, yet rival companies in England, like the Inmans, were disposed to think that Mr. Cunard was unduly favoured by the Imperial Government, and that the latter was too easily frightened by the American bogey he so often invoked..

Before the contract was given to the Allans in 1856, the carriage of the ocean mails of Canada was performed for a while by other contractors, the McLean-McLarty line, whose service was not satisfactory. The British Post Office Department declined to send letters to Canada by that line or by the Allans down to 1859, unless they were specially directed; in other words, letters destined for Canada and specially addressed to go by any named ship of the Canadian lines were sent by her, but no others. The British authorities desired, as they frankly acknowledged, that letters for Canada should be carried to New York or Boston by the Cunard vessels, in order that the British revenue from the sea postage might be increased, to meet the heavy subsidy to the Cunards. Again, on the failure of a Galway-American line of steamers, of which more will be said in a moment, the Canadian Government requested that the subsidy paid to it by the Imperial Government should be transferred to the Allans. The Galway steamers had called at Newfoundland, and were subsidised partly for that reason and partly because they served the West of Ireland and had been built with the money of a multitude of small Irish investors. It was contended in Canada, therefore, that as the venture had collapsed, it was only just and logical that the subsidy should be given to the Canadian line. Here, it was said, is England helping Boston and New York to the south of Canada and Newfoundland to the north, besides aiding lines to Australia and other Colonies; why, then, should Canada be overlooked, when without additional expense to the British taxpayer the Newfound-

land-Galway subsidy can be transferred to the Allans? The Imperial Government could not, however, see its way to transfer the subsidy.

The Allans have never received a postal subsidy from the Imperial exchequer, nor has any other Canadian line operating on the Atlantic. The British Post-Office turns over to the Canadian treasury the sea postage which it collects from mail matter carried to Canada by Canadian steamships, but gives no regular subsidy, and has never given any, to any Canadian Company on the Atlantic.

The first contract with the Allans, which took effect in 1856, their first steamship reaching Quebec in May, was for a fortnightly service in summer from Liverpool to Quebec and Montreal, and for a monthly service to Portland, the winter terminus of the Grand Trunk, the subsidy being £24,000 for the year, with exemption from the payment of lighthouse dues and all other Provincial and local taxes and imposts. A second contract was entered into in 1857 for a weekly service alike to the St. Lawrence and to Portland, commencing in May, 1859, for which they were paid at the rate of £45,000 a year. In 1860, the Postmaster-General, Mr. Sydney Smith, said that owing to the lower rates to and from Boston and New York, Canadian traffic was still being diverted to those ports, and for that and other reasons a better service was necessary. Great Britain was paying the Cunards 11s. 3d. per mile, the United States was giving the Collins steamers \$858,000 for 26 trips, while the Allans were receiving only 3s. per mile. On his recommendation they were given a special grant representing the ocean postage for a year, and the subsidy was augmented to \$416,000 per annum. Much interest was taken in their rivalry with the Cunards. The latter sailed from New York or Boston on Wednesdays, the Allans from Quebec or Portland on Saturdays. At the outset, the Allans made better time in summer than the Cunards. We find Sir Alexander Galt saying in a pamphlet entitled

"Canada from 1849 to 1859," that while the "persistent renewal of the Cunard contract when the necessity for it has ceased and when its injury to Canada has been demonstrated, was a grave cause of complaint," since it had forced upon Canada the payment of a large subsidy to the Allans, he was nevertheless glad to call attention to the fact that:

"The voyage from the St. Lawrence, upon an average of 26 passages in 1859, westward from Liverpool to Quebec, has been only 11 days 5 hours, and from Quebec to Liverpool, 10 days 3 hours; these results showing a better average than has ever before been made across the Atlantic, and conclusively establishing the superiority of the Canadian route; indeed through the Canadian steamship line the Grand Trunk Railway is now recognized, even by the United States Government, as the shortest and best route for their South-western and Western mails to Europe."

It was said in behalf of the Cunards that the St. Lawrence route had the advantage in point of distance. The subjoined table, corrected by the most recent measurements, fully establishes that assertion:—

	Nautica ¹	Miles.
Quebec to Liverpool viâ Cape Race -----	2,801	
Quebec to Liverpool viâ Belle Isle -----	2,633	
Halifax to Liverpool -----	2,450	
Sydney to Liverpool -----	2,282	
Boston to Liverpool -----	2,807	
New York to Liverpool direct -----	3,034	
New York to Liverpool by Cunard Ocean Route-----	3,108	
Portland to Liverpool -----	2,765	
Montreal to Quebec by River St. Lawrence -----	140	

In 1859, the British Post Office, for the first time, made up regular mails for the Canadian line. A portion of the ocean mails of the Western States was carried the year round by the Allan steamers down to about 1864, while New England mails were despatched by them in winter from Portland. The agreement with Washington was that the mails from Detroit and Chicago should be carried by the St. Lawrence for the sea postage without any charge for the haul to Quebec, whilst all ocean mails originating in or going

by way of Canada were carried free in winter between the Canadian boundary and Portland. By this arrangement postage by the Canadian steamers for Western States letters was sixpence as compared with a rate of eight pence by the Cunards. Mr. Oliver Mowat, Postmaster-General in 1863, reported that as a result, "most of the foreign correspondence of Michigan, Wisconsin, Iowa, Illinois, Minnesota and Montana, goes by the Canadian route," though the quantity fell off when the American Civil War began. An account was kept of the number of ocean letters carried by the Canadian steamers for the three years, 1861 to 1863:

	From Canada	From the U. S.
1861 -----	670,000	360,000
1862 -----	800,000	320,000
1863 -----	860,000	305,000

Detroit and Chicago, reached by the Grand Trunk, were exchange offices; special bags were made up there for Britain, and in return they received special bags from Britain for distribution throughout the West. In the same way, the Governments of France, Prussia and Belgium, on being assured that the Canadian line was now a weekly line, "that its permanency was secured by contract, and that the route was more expeditious and convenient than any other for mails between Europe and several of the United States," resolved to use it for the transmission of mail matter to the Western States and New England. In 1861, 130,000 European letters were carried by the Allans to or from those countries, in 1862, 140,000, in 1863, 152,000. The arrangements with these foreign Governments had to be made through the Imperial Government, whose officials, as Mr. Sydney Smith reported, got it into their heads that while the Cunard was the British, the Allans were an American line. Mr. Smith was of opinion that he could carry the ocean mails of some of the Southern States by the St. Lawrence and

Portland, provided the Allan steamers called at Queenstown. Letters could be conveyed from New Orleans to Chicago in 48 hours, from Chicago to River du Loup or Portland in 48 hours more, from those ports to Queenstown in ten days, and from Queenstown to Liverpool in 20 hours, making the time between New Orleans and Liverpool something less than 15 days, which could not be beaten by the Cunards. In November, 1859, the mails had been carried between Chicago and London by the Canadian route in less than 12 days. There was no Atlantic cable then, and Mr. Smith intended to erect a telegraph station at Belle Ile, so that the contents of letters and newspapers put ashore by incoming ships might be wired to Canada and the United States.

This satisfactory condition of things did not last long. Lord Durham heard of the Cunard contract of 1840 establishing steam communication between Great Britain and Halifax after he had left Canada, but spoke in his famous report of the urgency of building a railway from Quebec to Halifax. Unhappily, as things were, the British American Provinces had "no more means of concerting such common works with each other than with the neighbouring States of the Union; they stand to one another in the position of foreign States and of foreign States without diplomatic relations." The lack of railway communication between Halifax and Upper and Lower Canada was pleaded by the Cunards, as we have seen, as a reason for ceasing to call at Halifax; and, coupled with the want of political cohesion among the older Provinces, was one of the drawbacks under which the Canadian line of steamers laboured. A more serious drawback was the closing of the St. Lawrence for half the year, with the change of ports involved; while, by comparison with the Cunards, the Allans had a very small population to draw traffic from, and could not be expected, therefore, to keep abreast in the construction of larger and more luxurious passenger vessels.

It so happened, too, that the Allans met with a series of disasters which greatly impaired their resources. The *Canadian* was wrecked below Quebec in June, 1857; the *Indian*, near Halifax, in November, 1859; the *Hungarian*, off Nova Scotia, in February, 1860; a second *Canadian*, in the Strait of Belle Ile, in June, 1861; the *North Briton*, on Mingan Island, in November, 1861; the *Anglo-Saxon*, near Cape Race, in April, 1863; the *Norwegian*, on St. Paul's Island, in June, 1863; while the *Bohemian* struck near Portland in the winter season of 1864. The Canadian Government threatened to cancel their contract. Traffic fell off in all directions, especially passenger traffic. Sir Hugh Allan displayed a becoming fortitude in the midst of these misfortunes, and the public sympathized with him. Meanwhile, the Cunards, with all the advantages save only distance in their favour, went on building vessels of greater tonnage and speed, and, with the multiplication and improvement of railways in the United States, were soon in a position to make inroads upon the traffic previously carried by the St. Lawrence and Portland routes.

In 1859, the experiment of making Galway the chief British port on the Atlantic, in place of Liverpool, was tried by the Atlantic Royal Steam Navigation Company; and as kindred projects conceived with the view of reducing the time on the Atlantic are now being advocated in Canada, it may be well to say a word on the subject. This Company, which received £3,000 per round voyage, covenanted to run its steamers in smooth water at the rate of 20 miles an hour, and to make the voyage from Galway to Boston or New York, calling at St. John's, N. F., in six days. Galway was 360 miles nearer America than Liverpool; the route would therefore save from 24 to 48 hours on each single voyage; the dangers of navigating the Irish Channel would be avoided, which would reduce the insurance on hulls and cargo; and there would be a lessened con-

sumption of coal. Passengers and freight from England would be conveyed in fast boats from Holyhead to Kingstown, and transported across Ireland by fast trains. It would be an ideal route, the prospectus added, for emigrants bound for the United States as well as for English and American cabin passengers desirous of shortening the time spent at sea.

The Company broke down hopelessly within two years, partly owing to its having lost vessels, but principally because neither passengers nor freight would travel that way. Freight from England to the United States and vice versa was deterred, of course, by the transhipments and rail haul through Ireland; and passengers could not be persuaded to encounter them, even for the sake of saving time on the ocean. In short, while it was the shortest distance from land to land, it was not the route of least resistance. The abortive European and North American Railway of 1850 had been based on the same fallacious theory. The road was to run from Maine to Halifax, with New York and Boston connections, to enable people in the Eastern States and elsewhere to save two or three days on the voyage to Europe, and two or three more on returning from Europe, by sailing to and from Halifax. The President of the United States, Mr. Fillmore, supported it, and it was endorsed by an enthusiastic international convention at Portland. Someone asked, however, whether, other things being equal, any person in his senses would travel from New York, Philadelphia or Boston by rail to Halifax, particularly in winter, in order to take ship for Europe; and how ocean-bound freight could possibly stand that long haul. The discussion of these elementary questions proved fatal to the enterprise.

Similar ventures still crop up. Not long since, a Company wanted English capital for the purpose of establishing a steamship line between Louisburg and Galway, 1,915 miles, or Sydney and Loch Ryan; another is now resuscitating the Galway idea in behalf of

Black Sod Bay, in County Mayo. A distinguished Canadian goes further and recommends that fast steamers should be run from a port on the east coast of Newfoundland to Europe, his firm conviction being that, summer and winter, Canadians and Americans would rather travel by rail to Sydney, cross Cabot Strait by boat, and, on landing at Port aux Basques, traverse Newfoundland by rail for 350 miles more, than sail direct from Quebec or New York. All one can say of such fantastic enterprises, which are usually coated with sentiment to attract the British investor, is that they are likely to damage us in the eyes of sensible people. We are all aware that, cost and efficiency of service being the same, freight seeks the first exit instead of journeying by rail to a more distant port simply because it happens to be nearer to Europe. This is just as true of passengers. A Canadian bound for England prefers going on board the steamer at Montreal or Quebec to travelling by Inter-colonial to Sydney and catching her there, although that would save 30 hours of sea. In like manner, when returning, he does not get off at Sydney in order to proceed west by train when his destination is Montreal or some point beyond, but remains on the ship to the end without troubling himself overmuch about the duration of the voyage. The Canadian Pacific and Allan lines do a large passenger business in summer, when they sail from Montreal and Quebec, but lose the greater part in winter, when they sail from St. John and Halifax. This is simply because the traveller prefers to sail from Portland or New York, which are easier of access. The fact that Halifax is 550 miles nearer Liverpool than New York does not, ordinarily speaking, weigh with him at all.

Diplomacy did Canada a bad turn when, by the Ashburton Treaty of 1842, it deprived her of a short all-Canadian route to St. Andrew's, L'Etang and St. John, N.B. There is no need, however, to conjure up fanciful and absurd means of shortening

the Atlantic voyage. In the St. Lawrence we have a summer route shorter and more attractive than any other; whilst Halifax, if handicapped by its remoteness from the centres of trade and population, possesses an excellent harbour, and, if better supplied with railways doing business with the West, could readily augment its export tonnage. The proposal to confine the Canadian preferential duties on British goods to cargoes entering by Canadian ports is put forward in the interest of Halifax and St. John. In spirit it resembles the Russian regulation levying a higher duty on China tea carried to European Russia by the cheaper Suez route than on the same article carried all-rail through Siberia. It could only benefit those Canadian ports at the expense of the merchant and consumer of the Central and Western Provinces, and would probably lead to a decline in our imports from Britain, with a corresponding increase in purchases from the United States.

Under French rule and for long after, the river trade on the St. Lawrence between Quebec, Three Rivers and Montreal, was performed by small craft provided with sails and oars, known as batteaux de transport, which were hired by the voyage, by the month, or for so much per quintal of cargo. Montreal was an important point from its foundation in 1642, the Indians from the West assembling there to barter their furs; it was also on the route to the British Colonies to the south, with which a considerable illicit traffic was carried on. For France, like England and Spain, confined the trade of the Colony to herself as the Mother Country, and imposed severe penalties on those found dealing with the foreigner. She, too, had a preferential arrangement with her Colonies; their products received favoured customstreatment in her market, while they were obliged to buy such goods as they imported from her factories, which Colbert had carefully nursed. On the whole, her commercial policy toward Canada was liberal for that age.

Her bounties gave a start to shipbuilding, and she encouraged the forges at Three Rivers.

In 1763, General Gage reported to the Lords of the Treasury that only vessels of 100 to 200 tons could sail from Montreal to Quebec. Before the Welland Canal was built, produce from the Western Peninsula of Upper Canada was shipped by sailing vessels from one of the Lake Erie ports, transferred at the mouth of the Welland River to a smaller vessel, and taken up as far as the depth of water would allow, then landed and portaged to the Town of Niagara, where it was shipped to Prescott. At Prescott, the cargo was transshipped to a batteau and carried to Montreal. At Montreal it was placed on another vessel and taken to Quebec, where it was finally loaded on an ocean-going ship. The journey from Lake Erie to Quebec usually occupied 25 days, and the freight on a barrel of flour to Quebec was 9s., Halifax currency. Returning, a small vessel took English goods up to Montreal, where they were transferred to a smaller, which was dragged up the rapids by oxen or horses; if the water in the rapids was low, portages were made. The freight charge from Montreal to Lake Erie was £6 per ton. Mr. W. H. Merritt, a famous name in Canadian transportation, stated before the Canada Committee of the English House in 1827 that the rate from Liverpool to Montreal on general merchandise, in the vessels of 400 tons then in use, for none larger could sail through Lake St. Peter, was £1 2s. 6d. per ton; whilst for the next 400 miles from Montreal westward by water it was £6 12s. 9d.

The depth in Lake St. Peter at low water does not appear to have exceeded 11 feet at this time. Till the channel was dredged, ocean vessels bound for Montreal had to be lightered at Quebec, while outward-bound ships from Montreal loaded only part of their cargo, the remainder being taken to Quebec in tow-barges. The lighterage both ways frequently resulted in damage to cargo, particularly to wheat and flour going to

England. The shallowness of the river prevented Montreal from participating to any great extent in the export of square timber, which did so much for Quebec. Till steam navigation came in, New York was served by a fleet of clipper ships which crossed the Atlantic in remarkably good time. The *Dreadnought* is said to have sailed from Sandy Hook to Queenstown in 9 days, 17 hours. As late as 1836, Dr. Lardner, a scientific man of some note in England, declared that "the project of establishing a steam intercourse with the United States was perfectly chimerical; they might as well talk of making a voyage from New York or Liverpool to the moon." Some years afterwards, a more eminent man pronounced the laying of an Atlantic cable chimerical.

In 1846, the British preferential duties on Canadian products having been abolished, petitions were sent from Canada to the Colonial Office asking for the repeal of the Navigation Laws. One from the Montreal Board of Trade set forth that while the rates on flour and wheat from Montreal in the three years 1844-46 had averaged 4s. 9d. per barrel and 1s. 2d. per bushel respectively, those from New York were only 2s. 1d. and $7\frac{1}{4}$ d. The Navigation Laws excluded foreign ships from the St. Lawrence trade, so that British ships charged high, but without doubt the heavy cost of lighterage and towage from Montreal had something to do with the excessive rates from that port. As for imports, with which the Montreal petition did not deal, it may be well to say briefly that the Navigation Laws provided that no goods should be imported into a British possession in foreign ships, unless such ships belonged to the country of which the goods were the produce. After the repeal of the preference, Canada obtained Muscovado sugar from the Spanish West Indies, and the Montreal merchant had to hire British vessels to go there in ballast and fetch a cargo back, at a rate equal to 25 per cent. of the first cost of the sugar although American vessels trading thither

would have carried it to Canada for a great deal less. In a speech in the English House in 1825, Mr. Huskisson pointed out that the Nova Scotia fisherman and the American fisherman both went to Brazil to sell their fish, and, after they had sold it, the inequality commenced. The American could take in return any of the products of Brazil and convey them home or to any other part of the world, bartering them again, if he liked, for other wares, and finally returning to the United States with a cargo adapted for that market; whereas some of the staples of Brazil, sugar among them, could not be taken to Nova Scotia owing to discriminating duties against foreign and in behalf of British West India products; whilst if the Nova Scotian took sugar or any other Brazilian article to Europe, he could not take home what he got in exchange, because under the Navigation Laws such a cargo could only be carried to Nova Scotia directly from Britain.

The Toronto Board of Trade also addressed the Colonial Office, showing that the high rates on Canadian produce from Montreal to England, as compared with rates from New York, had offset the gain arising to the Upper Canadian farmer from the British preferential duties on his wheat. The petitioners declared that the "combination of a few ship-owners or their agents" at Montreal or Liverpool "has completely blasted all our hopes and intercepted the boon designed by Your Majesty's paternal Government for the benefit of Your Majesty's faithful subjects in the interior of the Province." The flour rate from Montreal to England, the petitioners said, frequently averaged from 5 to 6 shillings sterling per barrel, yet vessels of a superior type carried it from New York for 1s. 6d., and seldom higher than 2s.; whilst the cost of insurance from New York was from 50 to 80 per cent. less than by the St. Lawrence. Lord Elgin, in a letter to the Colonial Office, in June, 1848, summed up the case thus:

"The Canadian farmer is a supplicant at present to the Imperial Legislature not for favour but for justice; and, strong as is his affection for the Mothe

Country and her constitutions he cannot reconcile it to his sense of right that, after being deprived of all protection for his produce in her markets, he should be subjected to a hostile, discriminating duty in the guise of a law for the protection of navigation" If the Navigation Laws are maintained, "there is too much reason to fear that the bulk of the produce of Canada will find its way to New York and Portland, where even under existing laws it may be shipped indifferently in American or British bottoms."

During the existence of the British preferential duties, Montreal exporters profited by shipping American wheat to England as of Canadian growth, and even by shipping American timber. On the other hand, British manufacturers, whose goods received favoured treatment in the Canadian market, the Canadian tariff being framed in England for their benefit, complained that Canadians were in the habit of smuggling various lines of articles from the United States; whilst the Canadian Protectionists of the period denounced the preference on the ground that it left us in the humble position of exchanging food and raw materials for British manufactures, and prevented the establishment of manufactures in Canada.

In 1826, the Legislative Assembly of Lower Canada appointed a committee to consider the improvement of the channel between Montreal and Quebec. The pilots were of opinion that nothing could be done to deepen Lake St. Peter, as fast as it was dredged out the material at the bottom of the lake would drift back. At first, Bayfield was not very confident of the success of the undertaking. He found, however, that the bed of the lake and of the river consisted for the most part of a layer of sand lying above a deposit of tenacious blue clay, which ensured the permanence of a dredged channel. The work of deepening was not seriously begun till 1844. In 1853 the channel had been dredged to 16 feet, in 1859 to 18 feet, in 1865 to 20 feet, in 1878 to 22 feet, in 1883 to 25 feet; then came 27 feet in 1888, and to-day there is a 30-foot channel all the way from Montreal to Quebec. The width of the channel has been increased to 300 feet in the narrowest part and 500 in

the widest. There was public rejoicing in Montreal when the *City of Manchester* loaded to 14 feet draught sailed from Montreal in November, 1851; and again when the *Peruvian* made a test of the 25-foot channel. In 1860 the flagship bearing the Prince of Wales ran aground on a sandbank in Gaspe Bay, an incident which caused certain English newspapers to arraign the St Lawrence route. One paper supposed that Gaspe lay between Quebec and Montreal, and derided the work of deepening the river; to which a Canadian editor replied by republishing Franklin's burlesque upon English notions of the geography of this continent, to the effect that "the inhabitants of Canada are making preparations for a cod and whale fishery this season in the Upper Lakes, the grand leap of the whale in the chase up the Falls of Niagara," etc.

In 1841, the arrivals at Montreal were 200 vessels of an average burden of 200 tons. Since then, owing to the improvement of the river and to the extraordinary growth of Canada and of Canadian trade, the inward tonnage has enormously increased, amounting in 1906 to 816 ocean-going vessels of a tonnage of 1,968,000. The Allan line, which originally consisted of four steamers of an aggregate of 7,000 tons, now counts over 30 steamers, with an aggregate of 170,000 tons. Ten or twelve years ago, the customs collections at Montreal were \$5,000,000 a year; in 1907, they will reach \$17,000,000. Figures like these, striking through they are, do not, of course, tell the whole story. Birch bark canoe, Durham boat, batteau, schooner, horse-boat, steamboat—such has been the course of evolution on the inland waters; whilst on the ocean, we began with high-pooped barks so small that a man on deck could wash his hands in the sea, and are now employing steel steamships of 14,000 tons. Talon, Intendant of New France under Colbert, took exactly four months to come from France to Quebec. The Prime Minister of Canada recently

crossed from Liverpool in a Canadian Pacific *Empress* in a fraction over five days.

The first ship to cross the Atlantic from America, going all the way by steam, was the *Royal William*, Canadian-built, in 1833. The *Savannah*, an American ship equipped with steam paddles, crossed in 1819, the run taking 29 days, but she worked her paddles for only 80 hours, the rest of the voyage being made under canvass. Atlantic steam navigation cannot be said to have begun, however, till the *Sirius*, Leith-built and chartered by an Irish Company, ran from Cork to New York in 1838 in 19 days, followed by the *Great Western*, which steamed from Avonmouth to New York in 15 days. In due course, the screw-steamer succeeded the paddle-wheeler, iron ships took the place of wooden ships while iron in turn has been supplanted by steel. These leviathans are driven through the water at a speed equal to that of an ordinary passenger train, which will be increased when a steam-generator is devised that shall be less wasteful of power than the present marine boiler. The first Allan steamers of 1,500 to 1,600 tons were followed by others of 2,500. People used to flock to the wharf and gaze in astonishment at the *Parisian*, entered in the Customs books at Montreal as of 3,440 tons net register. This was in 1883. Like a Derby winner relegated to the shafts of a cab, the *Parisian* is now a freight boat running between Montreal and Havre. On the Atlantic, as on the Great Lakes, the larger the vessel the cheaper the transportation. But this rule does not hold good of the modern ocean passenger steamer, which, between machinery and coal, has little space left for freight, and is obliged to maintain high rates for saloon passengers, being in reality a floating hotel.

Extravagant expectations had been formed of the traffic likely to flow from the West to the St. Lawrence. The theory was that the surplus crop of Upper Canada and the Western States would be carried to Montreal and Quebec by the Canadian canals, which would take

back European cargoes and shipments from New England. The writer of a Toronto prize essay in 1860 fancied that cotton and tobacco from the South would find its way to our canals, and that we should derive so much revenue from the tolls on American traffic that it would not be necessary for us to tax ourselves at all.

For some years the canals were crowded with American business. Grain came down, and railway iron and general merchandise from Europe went up. Rates on the Erie Canal were reduced to meet the new competition. New York State had established a sort of protective tariff on the Erie, the rates on foreign salt, for example, being placed enormously high in order to benefit the Syracuse interests. All such devices were swept away on the completion of the Canadian canals, which in their day were of as much benefit to the American as to the Canadian farmer. The United States Government always appreciated their economic importance. By the Elgin-Marcy Treaty of 1854, it obtained the use of them for American citizens on the same terms as ourselves. If Great Britain suspended that privilege, the Government at Washington might, if it saw fit, suspend the free admission into the United States of all the products enumerated in the reciprocity clause of the treaty. Under the Washington Treaty of 1871 the Americans again secured their use on terms of equality, giving us in return the free navigation of Lake Michigan, "with a string to it," and promising to urge upon the State Governments to grant us the use of State canals like the Erie, a promise which resulted in nothing.

In course of time, however, by virtue of steel rails, better roadbeds, more powerful locomotives and larger cars, the railways began to cheapen their faster service. While the volume of export wheat in the Western and North Western States has greatly increased in the last forty years, the quantity carried from Buffalo to New York by the Erie Canal is now comparatively insig-

nificant. Nowadays the chief value of the Erie to the Western farmer lies in the fact that it serves to temper rail rates from Buffalo and Chicago. The case of the Canadian canals is somewhat similar. We must, of course, omit the Canadian canal at the Soo, which, opened in 1895, carries a large quantity of grain, as of other commodities, that does not reach any Canadian seaport. Taking the Welland and St. Lawrence Canals, then, the quantity of wheat they carried from Lake Erie through their whole length to Montreal in 1906 was nothing like so great, in proportion to the export volume of today, as the quantity they carried 40 years ago. They, too, do good work in regulating rail rates from the eastern limit of Upper Lake navigation to Montreal; but their importance as carriers has suffered in consequence of rail competition from that limit to Montreal. They are 14 feet deep. On the other hand, the channels used by Canadian vessels which confine their operations to the Upper Lakes, as for instance from Fort William to Georgian Bay ports, are much deeper; while there is a 20-foot channel between Buffalo and Duluth. The larger wheat-vessels, both Canadian and American, take cargoes as far east as their draft allows and there turn it over to the railways rather than to the canals.

Many of these Upper Lake steamers are as big as an ocean freighter. They have to stop at Port Colborne, if they go there, and lighter at the Welland Railway elevator, it being impossible to take a greater cargo than 75,000 bushels of wheat through the Welland Canal. The larger vessels on the Upper Lakes do not, however, go to Port Colborne, but to Buffalo, if they are American, and, if Canadian, to Lake Huron ports; where the railways come into play. To put it briefly, the Welland and St Lawrence Canals are altogether behind the age, having regard to the development of the modern steamer on the Upper Lakes, where there is at least 20 ft. of water with nothing to hinder the engineers from obtaining a still greater

depth. Of the 44 new American vessels put in commission in 1906, 32 were steamships 500 feet or more in length, with a capacity of from 9,000 to 14,000 short tons of freight. These could not pass through the Canadian canals, and would not if they could, simply because it would not pay to employ such huge craft at barge work, dragging themselves slowly, expensively and at great risk through the 26 locks of the Welland and the 20 odd other locks between it and Montreal. They traverse the Soo canals because those canals are merely single locks from 22 to 25 feet deep. A steamer of the Upper Lake type must be kept moving from port to port if she is to earn her salt; hence the docks are equipped with elaborate contrivances for ensuring rapidity of loading and unloading. To put her on our canals, whether the St. Lawrence, Trent, or Georgian Bay canals, assuming they were deep enough to receive her, would be on a par with the attempt to send a modern ocean vessel to Chicago.

Speaking roughly, cost of transportation by water is in inverse proportion to the draught of the vessel, or, to put it another way, decreases with the increase in size of ship and cargo. The Upper Lake fleet, with its long stretch of deep navigation, carries ore, grain, lumber, coal and general merchandise, which constitute the bulk of the traffic, at an exceedingly low rate. With the further development of the Canadian Northwest, the hopper of the West is destined to attain still more gigantic dimensions, and it is for the Dominion Government to devise some means of enlarging that part of the spout represented by the St. Lawrence route.

The first lighthouse on the St. Lawrence, that on Green Island, was built by the British Admiralty in 1809. Trinity House, Quebec, was incorporated in 1805, and the pilots were taken in hand. Before this they were supposed to be under the control of the harbour master of Quebec, but were virtually independent. The man who threw his hat on board an incom-

ing vessel had the right to convey her up the river. Under this custom, they waited for the ships as far down as Anticosti. The Trinity House regulations provided for the tour de rôle system, and made Bic the extreme eastern limit of the pilotage ground. In 1810, there were 21 pilots for the river above Quebec, and 43 for the river below. A shilling in the pound of the pilotage fees was reserved for the fund for decayed pilots. The Admiralty had built lighthouses in Nova Scotia before the close of the 18th Century. For the one at Cape Roseway, Shelburne, built in 1788, they sent granite from England, although the place was full of granite—an oversight equal to that which led them to equip gun-boats for use on the Great Lakes with tanks for fresh water.

In those times, Canadian-built sailing ships acquired a bad reputation. As said, the circumstance that they were admitted free to the British registry, while foreign-built were excluded, put a premium on scamping in the shipyards of Quebec and the seaboard Provinces; but even after that preference had been abolished, the percentage of losses was high. A contrast was drawn between them and the staunch old *William Fane*, the vessel which is said to have carried Wolfe to Quebec. She was originally a bomb-ketch, and, though not new in 1759, was sold into the merchant service and sailed far and wide till she sank with a cargo of coal in the Mediterranean in 1859. The wreck of the *Granicus* on Anticosti in the Fall of 1828, with the awful death of passengers and crew, who in the last extremity resorted to cannibalism, was one of the many tragedies of the route. An official record shows that fifty years afterwards, between 1870 and 1880, 106 vessels were wrecked on Anticosti and over 300 lives lost; of these, 7 were steamships, 67 sailing ships, 14 brigs and 18 schooners. The first lighthouse on Anticosti was erected in 1831. Before 1867, there were only 18 lighthouses and a single lightship between Quebec and Belle Ile.

The French used the Cape Race route, though Hocquart ordered a survey of Belle Ile, which saves 168 miles. In 1863, the Allans were forbidden by the Post Office Department to approach Cape Race in stormy weather. At the inquiry into the loss of the *Anglo-Saxon* off Cape Race, the following statement by Orlebar was read:—

"There are few coasts more safely approachable than the southeastern coast of Newfoundland from Cape St. Mary to Cape Race, if the lead be used and the speed moderate. Soundings of moderate depth extend far off all these headlands, and the water shoals gradually to the shore. But if vessels continue to be navigated in these waters, especially in foggy weather, without using the sounding lead, there is so much uncertainty in the strength and set of the currents, that shipwrecks must occur, as they have occurred, with lamentable frequency."

The Allan contract of 1869 likewise forbade the steamers from approaching Cape Race in fog. At that time the old *Hibernian* was the standard ship of the line, that is, no steamer built or purchased during the existence of the contract was to be of less size or power than the *Hibernian*. The time occupied on the voyage from Liverpool was not to exceed 14 days, with 13 days for the return, allowance being made for storms and for delays at Londonderry, where the British mail was taken aboard. The subsidy was £54,500 currency. The Allans were on their feet again, and giving a good service.

The heavy cost of insurance had always told against the St. Lawrence route, and does so still. There is a want of logic, not to say of fairness, however, in comparing the St. Lawrence with the New York rates, for the conditions are totally different. A vessel sailing from New York reaches the open ocean in four or five hours, and with the new Ambrose channel the largest ships find it tolerably plain sailing. Per contra, a vessel leaving Montreal has to traverse nearly 1,000 miles before she can be said to be in the open sea, before she is clear of Belle Ile on the north or of Cabot Strait and Cape Race to the south. The only routes compar-

able to the St. Lawrence in distance from the ocean are the Amazon and La Plata river routes in Brazil and the Argentine, but here the local conditions are so unlike that a comparison of insurance is out of the question. Nothing remains, apparently, but to treat St. Lawrence insurance as a thing by itself, and ascertain whether rates are excessive or not by putting premiums against losses for a period of years. The subject cannot be dealt with here, but it may be well to say, for the benefit of those in and out of Parliament who imagine that Lloyds is a monopoly, that, on the contrary, both at Lloyds and among the marine agencies at Montreal, there is absolute free trade in insurance of hulls and cargoes, the competition being quite as keen as that between fire and life companies.

Writing in 1716, Capt. De Voutron of Rochelle said he had been seven times to Canada and the dangers of the St. Lawrence had given him "grey hairs," which, considering that there were no lights and that the charting was poor, was perhaps not to be wondered at. In 1863, when the Government was disposed to cancel his contract after the disasters that had befallen the line, Sir Hugh Allan declared that the St. Lawrence was a "most difficult navigation", the best proof being that the only other line of steamers sailing to Quebec "had lost twice as many vessels in proportion to the number of trips made". Sir Hugh half suggested that the fact that his steamers were "bound to make the passage within a given time" had something to do with the losses. In his well-known essay on the Canadian canals, Mr. T. C. Keefer said the "greater number of the disasters" on the route "were attributable to an over-anxiety on the part of the Montreal traders to get the first cargo in," their ships exposing themselves to the ice by leaving Britain about the 20th of March. He noted, however, that the "improvement which has taken place in the character and navigation of the vessels employed in

the Canadian trade" had tended to reduce the number of disasters.

When steam was first introduced, it was said, not in Canada alone, that captains and pilots accustomed to sailing ships were apt to miscalculate the distance run at night or in foggy weather; they always made it less than it was, and so found themselves ashore when they fancied they were well out to sea. Moreover to save time, Canadian steamers were in the habit of shaving Cape Race as closely as they could, which in thick weather was courting danger. Now, they keep some miles away even in good weather. The Strait of Belle Ile was another dangerous place before it was surveyed and lighted. The Strait is about 40 miles long and 9 wide at the narrowest point; it is shallower in spots near the middle of the channel than at the shores, which is apt to puzzle the navigator caught in a fog. Good authorities say that if, on reaching Belle Island the incoming ship would always hug the Newfoundland side of the Strait it would have no difficulty in making the Gulf; the danger arises from vessels entering the Strait in heavy weather without exactly knowing where the two shores are. In a fog the only safe plan is to anchor.

The greater scientific knowledge possessed by captains nowadays, combined with the superior size and equipment of steamers, has done much to dissipate the bad reputation of the St. Lawrence route; to which it is only right to add that the recent labors of the Dominion Government in deepening the channel between Montreal and Quebec and buoying and lighting the coasts, have also borne fruit, insurance rates having been somewhat reduced since 1900.

The question whether the quantity of water in the St. Lawrence is or is not diminishing from natural causes is one of the first importance. Looking back in geological time, science tells us that the watershed of the St. Lawrence from the head of Lake Superior was

once a huge sea. The fossil remains of whales and other marine animals are found inland from the north and south shores of the river, and the evidence that the Great Lakes have shrunk appears to be equally conclusive. In recent times, the water has retreated and dry land taken its place at Collingwood, Toronto, Whitby and other points; and, whether from the cutting down of the forests or for some other reason, such tributaries of the St. Lawrence as the Ottawa and Saint Maurice have apparently lost in volume within the memory of men still living. Some think they can detect a slight lowering of the river between Montreal and Quebec since the construction of the Chicago Drainage Canal, and are quite sure the building of a canal from Chicago to the Gulf of Mexico would ruin the Montreal route. Others again maintain that, even in the tidal water below Quebec, the shoals and battures are slowly expanding in consequence of the depositing of detritus on their north face.

Col. Ralph Burton, who was in charge at Three Rivers in 1763, wrote in that year that the channel in Lake St. Peter, while "not above 13 feet deep, was formed of so soft a mud that a vessel drawing 14 feet may plough through". Eighty years afterwards the greatest depth in Lake St. Peter did not exceed 11 feet. Burton may have been mistaken; he may have had soundings made in the neighborhood of one or both of the two deep pools—they were over 20 feet deep—which, separated from each other by the Flats of St. Peter, formed part of the old ship channel. The early charts do not throw any light on the matter. The Archives at Ottawa contain a French chart, said to have been prepared in 1715, which records the soundings at low water from Quebec eastward, and one issued in 1780 by Des Barres, one of Wolfe's best men, from surveys by Major Holland, both of which appear to give a greater depth at the North Traverse, through which Wolfe's fleet passed, than

now exists. The Archives also possess a copy of a chart made in 1816 of the St. Lawrence from Prescott or below to Kingston, the soundings of which go to show that the river between those two places was slightly deeper on the whole than now. But in the absence of precise data going back for a long period, it is hardly safe to hazard an opinion one way or the other on this branch of the subject.

When a proposition was made to canalise two rivers in Spain the Council refused on the ground that it would be wrong to fly in the face of Providence; Providence had designedly left them unnavigable and unnavigable they should remain. That was the Castilian method of interpreting nature. Ours is equally curious. We maintain in Parliament and at public dinners that Nature destined the St. Lawrence route to be the great wheat route of the Canadian and American West; hence, come what may, it is bound to be such. Yet if we may thus argue from her works to her intentions, it is tolerably plain that in creating the St. Lawrence route Nature had no thought at all of the Western grain traffic, or she would not have closed it so soon after harvest and hampered it in the open season by such a formidable obstacle as Niagara Falls. All we can fairly surmise is that the route was formed, not to carry grain to Europe, but to carry water to the Atlantic. It is certain that if we wish to employ it for the former purpose we must be prepared, now and for years to come, to spend liberally on improvements. A considerable quantity of wheat from the Canadian West goes to Europe by Buffalo and New York, and as American railways continue to build spurs into Manitoba, more and more of our export grain may be diverted to American ports.

In the evolution "from steam-packet to steam palace," we have done our share under somewhat discouraging circumstances. While Britain has from the beginning paid liberal subsidies to the mail steamers sailing to New York, and given nothing beyond sea

postage to steamers sailing to Canada, Canadian vessels on the Great Lakes have suffered the boycott involved in the United States coasting laws. A Canadian vessel is debarred from carrying freight from one American port to another, which signifies that it can take no part in the stupendous traffic between the Lake States, with their 40,000,000 inhabitants. In 1906, over 50,000,000 tons of freight, valued at \$540,-000,000, passed through the Sault Ste. Marie canals, of which 95 per cent was carried by American and 5 per cent by Canadian vessels. Our shore of the Upper Lakes is thinly inhabited; it contains iron ore deposits not yet developed, but has no coal and no lumber worth speaking of for shipment westward. To be excluded from the American coasting trade is therefore a very serious matter for Canadian vessels. So long as that embargo continues, it would scarcely be fair to let American vessels participate in the Canadian coasting trade. It is not a question of Protection so much as of giving the Canadian lake marine a chance to survive, and this without inflicting loss on the Canadian shipper.

If an American vessel were permitted to carry grain, let us say, from Fort William to Midland—that is, from one Canadian port to another—it would discharge cargo and then run to Buffalo for a load of coal to Duluth, whilst the competing Canadian vessel would probably have to return to Lake Superior half empty, full return cargoes from Ontario ports being scarce by comparison. Supposing, however, that the Canadian vessel were fortunate enough to obtain a full load of merchandise at Midland or a cargo of coal at Buffalo for Fort William on every trip during the wheat-moving season, she would still be excluded from the American ore traffic, which constitutes seven-tenths of the entire freight tonnage going through the Soo canals, and is, after all, the mainstay of the American marine on the Upper Lakes, ore rates regulating wheat rates at Duluth and elsewhere. Thus far, Canadian vessel-

owners have handled the grain arriving at Fort William and Port Arthur with commendable despatch and at rates no higher than those at Duluth or than those which American vessels would charge from Fort William. On this score, therefore, there is no ground for advocating the admission of American vessels to the Canadian coasting trade, which, so long as Canadian vessels are shut out of the American coasting trade, would simply result in swamping the Canadian marine without affording cheaper transportation to the Canadian shipper.

The competition of American ocean ports has likewise told heavily against Montreal and Quebec. Package freight has been carried to the Montreal steamers from the Western States by Canadian railways, but at the same time New York and Boston have attracted certain classes of Canadian freight. The Canadian passenger traffic was meagre till recent days, immigration being light and the number of Canadians who could afford an European tour small; and here again American ports have cut into Canadian business to the detriment of the Canadian steamship lines. That they are open the year round gives New York and Boston a great advantage, besides which they are well cared for by the Federal Government of the United States, as well as by the local authorities. In 1903, a return was submitted to Congress showing all the Federal expenditures on canals, rivers and harbors since 1802, the total on harbors alone being \$147,000,-000. Of this sum \$1,150,000 has been spent on Portland harbor, \$5,250,000 on Boston, and over \$15,000,-000 in improving New York harbour and its surroundings. Since 1903, fresh outlays on a liberal scale have been made or undertaken; for example, the Ambrose channel at New York, which was recently opened to large vessels, will, when completed four years hence, be 18 miles long, 2,000 feet wide and 40 feet deep. Its present depth is 35 feet. A deep channel will soon be ready in Baltimore harbor. At Boston, the esti-

mated cost of completing the Broad Sound Channel, first reported on by the United States engineers in 1900, is \$10,600,000. The United States Government takes no part in the building of docks, but simply attends to the dredging of the harbor channels, the money spent on them being regarded as a national investment for the benefit of the American exporter and importer, which in truth it is.

All things considered, then, the rise of Montreal to her present rank among Atlantic ports is very creditable to Canada, but it is obvious that she can only maintain it by improving her harbor accommodation, reducing charges, and providing, with the help of the Dominion Government, a deeper channel to the sea. Mr. Babcock, one of the engineers in charge of the Ambrose channel, is reported to have said the other day:—

"They little thought in the old sailing-packet days that any channel other than that afforded by nature would be needed. Then came the side-wheel steamship of shallow draft, followed by the deeper draft screw steamship, until a 30-foot channel was found necessary. There were many engineers who believed that no deeper channel than this would ever be required. But as the ocean liners grew in length and depth a change became mandatory, until now we have the Ambrose channel, 35 feet deep at present but soon to be dredged to 40 feet. Yet no one can tell what demands may be made before the 40-foot channel is available four years hence, for no one can presage the length or depth of the future liner."

Montreal must keep pace with the times or lose her primacy to Quebec or else see more Canadian traffic go to American ports. Mr. Cowie, the accomplished engineer in charge of the channel from Montreal to Quebec, says with his present plant he could add three feet to the depth, making it 33 feet, within ten years; but by that time, New York may have 45 or 50 feet. The bottom of the river is composed of hard clay; the current does not affect it, and there is neither silt nor scour, nor does the material dredged out fall afterwards into the channel. Mr. Cowie is of opinion that any depth required may be reached. The Government should augment the plant

and provide the money for a further deepening to at least 33 or 35 feet without delay.

The State of New York is enlarging the Erie Canal to admit of barges carrying 1,000 tons of cargo, a step that will doubtless augment the trade of the port of New York. Various waterways of a more ambitious character are mooted, one of which, the construction of a 14-foot canal from Chicago to the Gulf of Mexico, with the deepening of the Ohio and other rivers to Pittsburg, Minneapolis and Sioux City, may some day be adopted by Congress. This project, like the enlargement of the Erie, may or may not hurt the traffic of Montreal, but will certainly be of advantage to one or more of her rivals. Aside from the generous Federal expenditures on dredging channels, the State Governments in the United States, together with the railways and the local commissioners of docks, do much for the principal harbors. All over the country, there is a demand for liberal outlays on harbors, and it is the same in European countries, notably in Germany. In Canada there is a tendency to regard such expenditures as of local rather than of national importance, and the cry that "Montreal is getting too much" is frequently heard. Our constant glorification of the St. Lawrence route is in part responsible for this narrow view of things. Did it into a man that nature has presented us with the finest and best route in the world, and he is entitled to ask why so much has to be spent by way of improving her handiwork. The St. Lawrence improvements have cost much, but when it is said that the loaded draft of the new Cunarder *Lusitania* is $37\frac{1}{2}$ feet, it is apparent that we have still a great deal to do. The canalisation of the Clyde, which has made Glasgow what it is, of the Thames, Elbe, Weser, Schelde and other European rivers, the construction of the Manchester Ship Canal, at a cost of \$75,000,000, and that of the Baltic or Nord-Ost-See Canal by Germany, connecting her North Sea and Baltic seaboards by a channel 60 miles long, all go to show how important other communi-

ties consider it to make the most of their opportunities for the improvement of navigation. As for docks, Liverpool has demonstrated what an excellent investment they are, even on a scale entailing a colossal outlay, provided there is sufficient business to be attracted.

The present Harbor Commissioners of Montreal are doing good work in improving it and laying out future improvements. The harbor extends from Victoria Bridge eastward to Longue Pointe, a distance in shore line of 10 miles. At present, only 6 3-4 miles can be said to be provided with berths. These are available for vessels drawing from 26 to over 30 feet. In the western part of the harbor, where most of the traffic comes, high-level wharves have been built and outfitted with permanent railway tracks, piers and sheds. On completion, the 14 sheds, which are of steel, will supply something like 1,500,000 square feet of storage space, which will furnish a maximum handling capacity of over 200,000 tons a week. Some of the sheds will be connected with the harbor elevator so that grain can be conveyed direct to the ships; it will be possible, in fact, to feed four ships simultaneously. The sheds are so arranged that a train load of freight can be placed alongside the ship to discharge.

Excellent as far as it goes, this is, or ought to be, only a beginning. It is suggested that Montreal should be made a free port, but not a free port in the sense in which Gaspe and Sault Ste. Marie were once free ports, or in which Hamburg, Cuxhaven, Copenhagen, Trieste, Sulina, etc., are free ports to-day. There, goods may be imported from foreign countries and exported to others without becoming subject to the Customs tariff; in some instances, the importer is allowed to blend them and work them up into finished articles. All that is meant by those who are urging the Dominion Government to make Montreal a free port is that the port should be relieved of the necessity of collecting wharfage dues. At present the Harbor Commission owes

the Government loans amounting to over \$11,000,000, though all the money has not yet been drawn, and, in addition, has borrowed \$2,000,000 from the public. The revenue required to pay interest and provide for the general up-keep of the harbour is derived from wharfage charges on goods passing over the quay, in or out. What is proposed is that the Dominion should assume the debt and abolish the wharfage charges. The heaviest burden on shipping frequenting Montreal is the cost of pilotage and insurance. It is hardly possible to reduce pilotage fees, Montreal being so far from the ocean, and insurance can be reduced only by making fresh improvements above and below Quebec, though from the nature of things it must always be higher than at ports actually on the seaboard. The local charges at Montreal, other than insurance and pilotage, are no higher than at Portland or Boston and lower than at New York; but, counting everything, Montreal is at a disadvantage. The removal of the wharfage dues, through the assumption of the harbor debt by the Dominion Government, would be a measure of relief which Parliament ought not to grudge. There are no light dues on any part of the St. Lawrence route, but there is a small toll payable to the Sick Mariners' Fund.

According to a recent statement prepared by the Shipping Federation of Montreal, the cost of insurance on a 7,400-ton steamer, with the same cargo in each case, from Liverpool to Montreal, Portland, Boston and New York, is as follows:—

	Hull	Cargo	Total
To Montreal.....	\$1,205	\$1,920	\$3,125
To Portland.....	600	960	1,560
To Boston.....	600	840	1,440
To New York.....	600	840	1,440

On the St. Lawrence route, pilotage begins at Father Point, 157 marine miles below Quebec, and is continued to Montreal, 139 marine miles above Quebec, or for a total of 296 miles. The rates per foot of draught

are moderate enough in themselves, but the aggregate in or out of Montreal is, of course, considerably greater than at American ports on the North Atlantic. On the other hand, as said, the port charges, other than pilotage and insurance, are no higher at Montreal than at Portland or Boston, and not so high as at New York. But it is not easy to make an intelligible comparison, inasmuch as at Boston, for instance, port charges are included in the through rail rates.

A number of steamships on the St. Lawrence route lose their character as "regular liners" in the winter season, and are obliged to go into the "tramp" business, thereby forfeiting to some extent their hold on Canadian trade. To enable them to overcome this disability, the Dominion Government gives subsidies to vessels running in winter to Maritime Province ports. A prominent shipping man, in a letter to the Marine Department at Ottawa, points out that of the pioneer lines on the St. Lawrence route only three or four remain, the rest, 15 or 16 in number, "having succumbed to the disadvantages of the short season, to the lack of depth in the Montreal-Quebec channel, and to the heavy insurance, pilotage and port charges at Montreal." Unfortunately, whenever the Government is asked to do something for Montreal, as the principal national port, sectional interests thrust themselves forward and demand that something shall also be done for Quebec, Halifax, St. John and Sydney.

If a 30-foot channel between Montreal and Quebec were sufficient to accommodate the large vessel of to-day and to-morrow, the present channel might be said to be perfect. It is as well lighted as a street, is furnished with telephone stations, and watched from the opening of navigation to the close by the Chief Engineer; in short, is as safe as money and skill can make it. But the fact remains that it is inadequate for the larger steamers of to-day and five years hence will probably be in a still worse position. It has been said that a greater depth of water could be obtained

for the upper part of the Montreal and Quebec channel—the part above the chief tidal influence—by damming the river at the Richelieu Rapids, near Platon. The best authorities do not fall in, however, with that suggestion. They say that, in the first place, it would necessitate the building of a lock at the Rapids, which would delay ocean-going vessels, and again that it would lead to the flooding of a great tract of the low-lying country on each side of Lake St. Peter.

Below Quebec, vessels have for a long time used the South Channel, going south of the Island of Orleans, down past Crane Island, and through the South or St. Roch's Traverse. Formerly, the North Channel was used; that is, the vessel from Quebec went south of Orleans, and then passed through the North Traverse to the North Shore. The two routes are marked on the map attached to this pamphlet. It is the general opinion that if larger ships are to be employed, it will be necessary to resort to the North Channel again. This will call for the dredging of the North Traverse, a space of six or seven miles; but as the bottom is sand and clay, the task would not be a very formidable one. Once through the North Traverse, a vessel would have deep water all the way to the Gulf of St. Lawrence, with a channel wide enough for all purposes; in addition to which, she would have high banks on the north from which to take her bearings, with no currents to vex her. With the present plant, the work of deepening the North Traverse could be completed within three years, or by the time a larger and faster type of steamer than the *Empresses* or Allan turbiners of to-day was ready.

The South Channel was adopted simply because it was deeper than the North Traverse. Navigators always favoured the North Channel, but the North Traverse was its weak link. The only improvements that have ever been made in either of the channels below Quebec are those commenced in 1906 and now nearly completed at the Beaujeu Bank, south of Crane Is-

land in the South Channel, where a sand-sucker dredge has made a depth of 30 feet at extreme low water. Before this, the large steamers had to wait there for the tide. The worst spot in the South Channel, however, is the St. Roch's Traverse. In places it is 34 feet deep, but at these places it is comparatively narrow; elsewhere it is wider, but not so deep. Its ugly features are, first, the current which runs like a mill-race each way with the tide; and, second, its hard bottom, which would prevent it from being dredged to a greater depth for the new type of steamer, except at a tremendous cost. If a vessel were to ground in the St. Roch's Traverse, the chance of getting it off would be small; whilst if she grounded in the North Traverse, after that passage had been deepened, she would suffer no great harm, for the bottom is soft and the current nothing like so swift or dangerous. The St. Roch's is well lighted, artificial piers having been erected for that purpose, and no accident has occurred in recent years; but engineers and navigators agree that if larger steamers are to be introduced, it must be abandoned and the North Channel made available by the dredging of the North Traverse from St. Jean on the Island of Orleans across towards Cap Tourmente.

This work, including, perhaps, the widening here and there of the North Channel, is estimated to cost \$2,000,000 at the outside. While it is going on, vessels can continue to use the South Channel. The cost of deepening the channel between Montreal and Quebec to 33 or 35 feet, and of improving Montreal harbor, would be considerably more. Then a graving dock capable of receiving large steamers is required at Quebec, the present dock at St. Joseph de Levis, built in 1872, being obsolete. A dock at Montreal is also urgently called for. Not long since, a British warship, injured in the Baie Chaleurs, managed to reach Quebec, but had to be sent for repairs to Bermuda before she could return to England, the dock at Halifax being for some reason unavailable. If anything serious should happen

to one of the large steamers frequenting Quebec or Montreal, there is no dry dock at either port to take it in—a state of things which tells against the route, both with insurance men and owners. Another duty involving little or no expense is that of raising the general level of intelligence and skill among the pilots above and below Quebec. Some are competent enough, but it is probably safe to say that, as a body, they are not equal to the task of handling the large steamers of the present time.

It is important also, not to Montreal only, but to Ontario and Quebec, if not to Canada at large, that the Dominion Government should come to some understanding with the United States for the maintenance of the present depth of water in the Upper Lakes, so far as that can be accomplished by preventing them from being drawn upon for canals like the one projected between Chicago and New Orleans. The American Lake Carriers' Association will doubtless use all its influence at Washington in that behalf, but some sort of agreement should be arrived at, if possible, between the two countries. As it is, the navigation of the St. Lawrence route from Port Dalhousie to Montreal and Quebec may at any time be seriously interfered with by the diversion of water from the Upper Lakes. Lakes Superior, Huron, Erie and Ontario may be described as international inland seas, the territory enclosing them being owned in part by Canada, in part by the United States, and their navigation being therefore open to the vessels of both. It is not so with Lake Michigan, which is an American sea pure and simple. As Sir John Macdonald said in his speech on the Washington Treaty:—"This lake is enclosed on all sides by United States territory; no portion of its shores belongs to Canada, and England has no right by international law to claim its navigation." Its navigation was conceded to us by that treaty for a consideration. Being American territory, the Americans can do what they like with it; they can connect it with the Mississip-

pi for the purpose of forming a waterway from Chicago to New Orleans, regardless of the effect of such a work upon the depth of water in the St. Lawrence, without, as matters stand, saying to us by your leave.

If it be said that some of these recommendations would involve a very large Federal expenditure, the answer is that a very large expenditure is necessary if we desire to bring the St. Lawrence route to a state of efficiency. Our canals are no longer adequate to the traffic of the Upper Lakes, while the route from Montreal to Quebec and below is no longer adequate to the volume of outgoing freight or to the requirements of the modern type of ship, more particularly of the modern ocean-liner. Look at what we have spent and are spending for the development of the North West in transcontinental railways, at the inrush of immigrants, the growth of domestic and foreign trade, the multiplication of industries in the older Provinces, the new life with which the whole community seems to be animated, and the probabilities, not to say the possibilities, of the near future—let the reader consider these things, and ask himself if, with active American competition in the carrying trade at our doors, it is advisable to let this great highway remain in its present congested and out-of-date condition.

Against this it may be said that the St. Lawrence route is deep enough, inasmuch as the size of vessels is not likely to increase; that the depth of water in European ports and the Suez Canal will not permit of their enlargement much beyond their present dimensions, and that in the case of passenger steamers there is bound to be a reaction against huge ships that are excessively fast and in favor of smaller ones only moderately fast. This is possible. No one can see far into the future of science or of shipbuilding. What detracts from the weight of the prediction is that it has been advanced at intervals ever since vessels began to grow in size, and has been as regularly upset by events. The first steamship built expressly for the Atlantic pas-

senger business was the *Great Western*, of 1838, which was over 200 feet in length and of 1,300 tons burden. Since then, there has been a steady progression in length and tonnage, as well as in speed, and to say that the maximum of all three has now at last been reached, is but to repeat what has been vainly asserted so many times before. It may turn out to be true on this occasion, but the probabilities are the other way. The following tables speak for themselves:—

PROGRESS IN SIZE.

	Feet.		Tonnage.
1838.—First to Exceed	200	Great Western	1,340
1845 " "	300	Great Britain	2,084
1871 " "	400	Oceanic (1)	3,807
1881 " "	500	Servia	7,400
1893 " "	600	Campania	12,900
1899 " "	700	Oceanic (2)	17,000
1904 " "	725	Baltic	23,000
1907 " "	785	Lusitania	32,500

The *Great Eastern* built in 1858, was over 680 feet long and of 18,900 tons, driven by paddle-wheels and propeller, but she was not an Atlantic liner in the ordinary sense.

REDUCTION OF PASSAGE TO N. Y.

	Days.	From		Name.
1862.—Under	9	Queenstown		Scotia.
1869 "	8	"		City of Brussels.
1882 "	7	"		Alaska.
1889 "	6	"		City of Paris.
1894 "	5½	"		Lucania.
1897 "	6	Southampton		K. W. der Grosse.
1903 "	5½	Cherbourg		Deutschland.
1907 "	5	Queenstown		Lusitania.

On the St. Lawrence route, the length of passage had been reduced in very nearly the same proportion. Canadian shipping on the Atlantic, be it said once more, has received no assistance beyond what the Canadian

Government has been able to pay to steamers carrying the mails. Payment is by trips and the total is now about \$600,000 a year, divided between the Allans, who have the contract for a term of years, and the Canadian Pacific, who are sub-contractors. The British Government helps its shipping by means of mail subsidies, by subventions paid to steamers which may be used by the Admiralty as auxiliary cruisers, and by appropriations for the maintenance of a force of naval reserves. The mail subsidies for the fiscal year 1907-8 exceed \$3,500,000, without counting the new subsidy to the Cunards. The subsidies paid for services outside the United Kingdom are in the net \$2,650,000. This much devolves upon the Imperial treasury after Colonial contributions to certain services have been deducted; for instance, the Imperial Parliament votes \$300,000 a year for the carriage of mails between the United Kingdom and China and Japan through Canada, but of this the Canadian Government repays \$75,000, making the net outlay \$225,000. The aggregate of \$2,650,000 voted for mail and parcel-mail services abroad for the current fiscal year is distributed thus:—

Europe.....	\$ 145,000
America.....	1,130,000
Africa.....	145,000
Asia and Australasia	1,230,000
<hr/>	
Total.....	\$ 2,650,000

The payments for carrying the mails between the United Kingdom and the United States are \$750,000—the new Cunard subsidy not included—and there are subsidies for services to Newfoundland, Mexico, Brazil, New York to Bermuda, etc. In Africa, there are subsidised services to the Colonies on the West Coast. In Asia there is a large subsidy to the Peninsular and Oriental Steam Navigation Company for carrying the mails to India, Ceylon, Hong Kong and the Straits Settlements. No subsidy is given by the Imperial

Government for the transport of mails to Australia or New Zealand. Long ago, as said above, a subsidy was paid for the Australian service, but now those Colonies, like Canada, have to foot their own postal bills.

The German Government assists its shipping by subsidies to mail steamers and by granting preferential rates on goods exported over the State-owned railways. The North-German Lloyd and Hamburg-American lines receive a moderate sum for carrying the mails to the United States, about a third of a million annually; but the lines of those and other companies to Australia, Africa and the Orient are somewhat heavily subsidised. The line from Germany to Australia gets \$550,000 a year. As in England, the large outlay on naval vessels is of assistance indirectly to the construction of merchant shipping. In both England and Germany, the policy of the Government in granting mail subsidies is to give them to the strongest companies, which, it is found, render a better service than weak concerns, and can push trade with greater vigor. In Germany, mail subsidies are granted to home-built ships only, and home-shipbuilding is encouraged by various devices. In the United States, the coastwise trade is open only to American vessels; the large expenditures on ships of war are of benefit to the plants engaged in building merchant ships; and the contracts for carrying ocean mails are restricted to American vessels. The payments for carrying the Atlantic mails in 1906 were \$1,443,000; for carrying the Pacific mails, \$447,000; for the entire foreign mail service, \$2,965,000.

We now come to the new Cunard subsidy. We have seen that the founder of the Cunards was liberally assisted by the British Government when steam navigation was first introduced on the Atlantic, on the theory that it was necessary to maintain British supremacy against American competition. The Company is now being assisted in a very generous manner on the ground that it is necessary to uphold British supremacy against German competition. The Ger-

mans had produced passenger steamers that were faster than the British, and in 1903 the Conservative Government then in office resolved to help the Cunards to "win back the blue riband." As very fast ships are by their nature disabled from being commercially profitable, the Government went as far as it could in granting assistance. The principal features of the contract are these:—

The entire Cunard fleet, including the *Lusitania* and *Mauretania*, is to be at the disposal of the Government for purchase or hire; the price, in the event of purchase, being set down at the scheduled value of the ship, plus 10 per cent. The Company cannot dispose of a ship of over 17 knots without Government sanction, while in the case of a projected sale of any of the vessels of less speed than that, the Government will have the option of stepping in and becoming the purchasers themselves. Even in the matter of chartering there is to be State supervision, a clause of the agreement providing that "no ship over 17 knots shall be let on charter-party without seven days' notice to the Government and production of satisfactory evidence as to bona-fides." The Company are forbidden "to raise unduly freights or charges," or "to give undue preference against British subjects." In order to ensure that the line shall remain an all-British one, it is stipulated that no foreigner shall hold office as a director or be employed as one of the principal officers of the Company, and that "no share shall be held by or in trust for, or be in any way under the control of, any foreigner or foreign corporation or any corporation under foreign control."

On the financial side of the contract, the Government lends the Company £2,600,000 with which to build the *Lusitania* and *Mauretania*, and, in addition, gives each ship a subsidy of £75,000 a year. The loan of £2,600,000 carries interest at 2 3-4 per cent, and the capital sum is to be repaid in 20 years. The £150,000 per annum which the Company is to receive for the

two ships is not compensation for carrying the mails. The work of carrying the mails will be paid for separately, the figure being fixed at £68,000 per annum for the 20 years during which the agreement will run. This represents about £6,000 per annum more than the Company were receiving under the old poundage arrangement. With this separate payment being made for mail services, the £150,000 a year practically resolves itself into a merchant-cruiser retaining fee. Prior to the agreement, however, the Cunards had been receiving a considerable sum, nearly £30,000 per annum, on merchant-cruiser account. When this is deducted from the present subvention, there remains £125,000 a year for the cruiser subsidy, which, added to the higher remuneration for mail-carrying, gives the Company about £130,000 a year more than it received before, though against this must be set the interest on the loan and the payments on account of sinking fund. The two new ships are to maintain an average speed of not less than $24\frac{1}{2}$ knots in moderate weather.

This remarkable bargain with the Cunards raises the old issue that England, without intending to do so, is helping New York at the expense, in some degree at least, of the St. Lawrence ports. It so happened that shortly before the Cunard agreement was adopted, the question of establishing an All-Red route was brought before the Colonial Conference by the late Mr. Seddon of New Zealand, a very enthusiastic Imperialist. His plan was to place fast steamers between England, Canada, Australia and Hong Kong, with the view, as he expressed it, of solidifying the Empire, although judging by the recent Australian tariff, the All-Red cable, which costs Canada a good deal, has not done much in that direction. But an All-Red route has been in existence for a long time, namely, from Liverpool to Canada by the *Empresses* and Allans, across Canada by the Canadian Pacific to Vancouver, from Vancouver to Australia by the Canadian-Australian steamships and from Vancouver to Japan and

China by the Canadian Pacific steamships. Imperial interests are amply protected and encouraged by these lines, so that when we talk of establishing an All-Red route over precisely the same ground all that is meant is that faster vessels should be employed. The Cunard contract brought the subject to the front again at the Colonial Conference of 1907, and Sir Wilfrid Laurier and Lord Strathcona have been pushing it with energy, the argument coming to this, that as England is doing so much for the United States or for New York, she is in duty bound to do something for her own Empire by co-operating with Canada and the Australian Colonies in establishing a faster All-Red service than now exists. Mr. Asquith and Mr. Lloyd-George apparently acquiesced at the Conference, and the matter is now engaging the attention of the Imperial Government. During the Chamberlain campaign for preferential duties within the Empire, some Liberals contended that Imperial unity could be promoted at less cost and with less risk by the creation of fast steamship services; but, of course, the Government is not bound by what may have been said by individual members of the party when in Opposition.

The weak points of the scheme are briefly these. First of all, while sentiment is an excellent thing in its place, it is a poor foundation by itself for this or any other project involving a large outlay. As material considerations usually prevail in the long run, a scheme of this magnitude, if it is to be successful, and failure would be disastrous from every aspect, must rest, not on sentiment merely, but on a sound business basis. This granted, it is obvious that nothing could be gained, to begin with the outlying parts of the programme, by putting 25-knot steamers on the Pacific Ocean between Vancouver and Australia. A vessel of that speed would burn well on to 15,000 tons of coal, costing about \$60,000, on each single voyage. This, to go no further, stamps the scheme as impracticable. No freight goes from England through Canada to

Australia, or contrariwise, by the existing All-Red line, and none would go if the speed of the vessels on the Atlantic and Pacific were increased to 25 knots, the rail haul through the Dominion with the transhipments at Quebec and Vancouver absolutely forbidding it. It is possible that a few more European and Australian passengers might be secured for the Anglo-Canadian route to Australia by faster ships, but to what extent would that recoup the Canadian taxpayer for his outlay? Our trade with Australia is small, and likely to diminish from the operation of the new Australian tariff, nor is it possible to conceive how we could foster it in any appreciable degree by contributing to the enormous cost of putting *Lusitanias* and *Mauretanias* on the Pacific virtually for the carriage of passengers alone. The all-sea routes from England handle all the English freight to and from Australia and would continue to do so; whilst our slender freight is transported by the Canadian-Australian steamers, owned in New Zealand, with fair despatch and at reasonable rates. Canada grants a trip subsidy averaging about \$180,000 a year to this line, and it might pay us, and the Imperial Government as well, to furnish an additional sum to enable it to put new vessels, say of 18 knots, on the route. With such vessels, the journey from England through Canada to Australia could be made in less than 30 days. By its new contract, the Peninsular and Oriental Navigation Company is bound to make the journey from Brindisi to Adelaide by way of the Suez Canal in 29 days. England is interested in the Vancouver route to Australia because of her commerce with the South Sea Islands, where Germany is becoming a keen competitor. Her freight would not go by it, but her exporters or their agents might travel by it since it is a pretty direct route to that archipelago, the ships stopping at Honolulu and Fiji, the latter a British Crown Colony. The Oceanic Steamship Company, which for many years ran vessels from San Fran-

cisco to Auckland (New Zealand) and Sydney, has recently gone out of existence, and American travellers and American freight are using the Vancouver route to Australia much more than before. The employment of 18-knot ships through an increase in the subsidy would be a very different thing, however, from the employment of 25-knot ships, which would not be freight carriers except in a limited sense and would "eat their heads off" with a vengeance every voyage.

The Canadian Pacific steamers between Vancouver, China and Japan are quite capable of handling all the passenger and freight traffic that offers at present between Canada and the Orient. To put 25-knot vessels there would be to risk much without solidifying anything. The P. & O. carries the mails from England by Brindisi to Bombay in 13 days, a performance which the Canadian route could not equal if we had *Lusitanias* on both oceans. By the Siberian railway the mails can be carried from London to Shanghai in 19 days or less, several days quicker than they could be carried through Canada. No British freight is conveyed through Canada to China or Japan for the same reason that none goes to Australia this way, so that the Imperial Government has no particular interest in taking up this portion of the All-Red scheme.

There remains the proposal to place 25-knot steamers on the Atlantic with the aid of subsidies from the Imperial and Canadian Governments. The *Lusitania* cost \$6,250,000. For a weekly service of 25 knots between England and Canada, at least four such vessels would be required, which, with working capital, would necessitate the investment of something like \$30,000,000 at the outset. It may be assumed that steamers just as swift would always sail in and out of New York, which is merely saying that the United States can afford to indulge in such luxuries as well as we can. New York competition would therefore have to be reckoned with, especially in the five winter

months. The first suggestion was that the steamers should make Halifax their Canadian port the year round that they might have the advantage of its short route to Liverpool, and the old vision was revived of people from New York, Boston and elsewhere abandoning their own equally fast lines and hastening thither to reduce the time to be spent on the ocean. That fallacy has already been dealt with and need not detain us again; it is so transparently contrary to men's habits of travelling that anyone may see through it. If we reflect what the upkeep of a ship like the *Lusitania* means, what is involved even in tying her with her capital account to a wharf, how little cargo she can carry, and how large a passenger list she must have on every voyage in order to make both ends meet, it is easy to believe that she finds it impossible, even with her magnificent subsidies, to clear expenses on the New York route; and if that is the case at New York, what would be the size of the deficit at Halifax? The cost of building and operating a vessel like the *Lusitania* cannot be arrived at, as some suppose, by taking that of a 16-knot ship and working the matter out by rule of three. Cost increases at an amazing rate with the addition of every knot to the speed. The coal bill of the *Lusitania* on a single voyage to New York, about \$26,000, would pay for all the coal consumed by a 16-knot steamer in some months; and so with wear and tear of machinery and almost everything else.

From its loveliness and its historic associations, the St. Lawrence route possesses a spell which is bound to attract travellers under any circumstances, and if it were open the year round it would be an ideal route for the largest of steamers. But what the Dominion and Imperial Governments have to ponder is this: A long winter, during which passenger business by Halifax and St. John is depleted owing to the diversion of traffic to American ports, while in summer all the business obtainable in Canada, or to be had from the United States, is and must always be small by

comparison with that flowing to New York. Montreal is a good port for freight, but Halifax is far from the point of origin, and just as distant from the main currents of passenger traffic. Can we honestly tell the investing public—for if we grant a joint subsidy we shall virtually be putting our official endorsement on the scheme—that any Company which sinks \$30,000,-000 in *Lusitanias* for this route is likely to make a profit and have an abiding business?

That is the question before the two Governments. Navigators, engineers and transportation men do not think it would be prudent, for the present at any rate, to put on the route vessels of a greater speed than 20 knots. They are not frightened by the objection raised in England that the Lower St. Lawrence is exceptionally dangerous to large vessels on account of fogs. Fogs are more prevalent in some seasons than in others, but, striking an average, the best Canadian authorities say the risk of detention and accident from fog between Quebec and Belle Ile or Cape Race is not 5 per cent greater than on the New York route. The risk from ice in the spring is, however, considerably greater. The main reasons why the experts referred to would exclude *Lusitanias* and adopt steamers of only 20 knots, with a draft not to exceed 33 feet, are, first, that the channels below Quebec, Montreal being out of court, cannot be made deep enough or safe enough to accommodate larger vessels, at any rate until the North Channel is adopted; secondly, the business of the route, including all that might be drummed up in the United States, would not, at the present time, justify the employment of ships of greater speed. In their judgment, Quebec should be the summer and Halifax the winter port. To give the new vessels fair play, the rule obliging mail ships to call at Sydney in the early season, before Belle Ile is open, when the ice is pouring through Cabot Strait or lying jammed in a vast field off coast, should be abolished. The call of incoming vessels at Rimouski is necessary perhaps for the quicker

landing of the British mails, but there is no good reason why outgoing ships should call there. The winter service would materially assist Halifax, provided passengers could be induced to go there in some considerable number every week, not from Eastern Canada merely, but from Toronto, Winnipeg and the Western States. To afford them a direct route and provide one for incoming passengers, it would be necessary to give the Canadian Pacific access to Halifax over the Intercolonial. It cannot be sound policy to continue the Intercolonial's monopoly of Halifax, which is leaving that port to isolation and decay. These persons are also of opinion that the Canadian Government should form a Company out of the Canadian Pacific Atlantic Steamship Company and the Allans, with Government representation on the Board, rather than encourage the establishment of a new competitive line. It would not be fair, they say, to start such a line with the assistance of British and Canadian subsidies for the purpose of invading the business of the existing lines, and it would not be wise to do so, inasmuch as the Canadian Pacific could afford to keep its ships on the Atlantic under conditions that would bankrupt a new concern heavily burdened with capital and interest charges, and with no railway behind it, depending for freight and passengers merely on the Intercolonial and the Grand Trunk Pacific, the latter under bonds to the Grand Trunk proper to ship from Portland. To attempt to operate an All-Red route without securing the hearty co-operation of the Canadian Pacific would, in fact, be absurd.

Let us see what 20-knot ships, the present *Empresses* being 18-knot ships, would do for mails and passengers. To begin with, they would reduce the time of the voyage from Liverpool to Quebec by about 14 hours, with a corresponding reduction of that to Halifax. At present, the *Lusitania* leaves Liverpool on Saturday and lands her mails at New York on the night of Thursday—Friday following. The *Maure-*

tania can scarcely do much better. From New York to Chicago is 20 hours by rail, allowing a brief space for the transfer of the mails to the train. Letters are therefore delivered in Chicago on Saturday morning or forenoon, by which time, of course, the passenger could also be there, if the trains suited. The *Empresses* leave Liverpool on Friday and usually land their mails at Rimouski on the following Thursday at 9 a. m. Rimouski is 342 miles from Montreal by the Intercolonial. They should be delivered to the Montreal post office in 8 hours, or, allowing an hour for detention at Rimouski, by 6 p. m. on Thursday, and be in the office of the Montreal merchant on Friday morning and in Chicago on Friday evening. As it is, therefore, the mails by the *Empresses* leaving England on Friday are, or ought to be, delivered throughout Canada and the Western States several hours before those of the *Lusitania*, leaving on Saturday. Reduce the voyage of the *Empresses* by 14 hours, and the Canadian mails would be in the hands of Canadians and of people in Detroit, Chicago, St. Paul, Minneapolis and beyond about 24 hours before those of the Cunard vessels. Whether, under these circumstances, the Washington Government would allow the *Empresses* to carry the ocean mails of the West and North West, as the Allans once did, is a matter which those sections of the United States would be considerably interested in.

It will be asked what the Canadian farmer has to gain from rushing American mails and American passengers from England through Canada to the United States or even by furnishing 25-knot vessels for Canadian passengers. The answer is that if, at a reasonable cost, we can attract travel to the St. Lawrence route which now goes by American ports, the country at large will benefit, and he, in particular, will feel the good effects in the shape of a quicker service, and, in the end, of reduced rates for his package freight, his cheese, butter, bacon, eggs, fruit and the like. One of the Granges in Western

Ontario has passed a resolution declaring that the farmer "should not be asked to pay for a mere advertisement for the St. Lawrence;" but this would be something more substantial than an advertisement or a sport's pride in seeing a record beaten. We want immigrants, and the tide has begun to flow in this direction; will it not be a fair appeal to them to point out, not only that they can do as well in Canada as in the United States, but that they can be carried across the Atlantic and landed on the prairie within a little over a week from the time of leaving home? We all agree with the poet that

When love unites, wide space divides in vain,
And hands may clasp across the spreading main.

Yet much good has been done to the political relations existing between Canada and England by the bridging of the Atlantic by means of swift vessels and swifter cables, where communication was once so slow and uncertain that the news of Waterloo, fought on the 18th of June, did not reach Quebec till the end of August. When the Allans were first subsidised, there was an outcry from Upper Canada; it was said the sailing ships were good enough. Who would return to that condition? As a growing people looking to the Old World for population, can we afford to let our neighbors completely outstrip us when, by the arrangement of nature, our ports are nearer Europe than theirs? And to come back to the old grievance, is it too much to ask England to join us in doing for Halifax and the St. Lawrence something akin to that which she has done out of her own pocket for New York?

Everything depends on the manner in which the Canadian Government presents the undertaking. There is plenty of opposition in England. The labor member asks why he should be taxed for a scheme designed to overcome the separatist tendencies of the high tariff we maintain for the purpose of excluding his wares from our market. Others object on principle to all subsidies, condemn the Tories for the bargain

with the Cunards, and are ready to condemn the Liberals if they assist us. Leading newspapers point out that because the United Kingdom has seen fit, for the sake of her prestige on the sea, to bonus the Cunards, it does not follow that she ought to bonus a Canadian line further north, where there is no German competition. Even those Englishmen who would like to see the Imperial Ministry fall in with the project warn us that it must be submitted in a business-like form, and not merely cobbled together for election purposes in Canada; they think a 20-knot service is preferable to a 25-knot, being quite sufficient for our wants at present and much less expensive; and add that, putting sentiment aside, we must be able to show that there is a reasonable prospect of the Company's succeeding and paying a fair return, even in hard times.

In a pamphlet on the Colonial Conference of 1907, the Cobden Club deals briefly with the All-Red proposals. "It is one thing", says the writer, "to stimulate by Government aid the existing currents of Imperial trade and travel, but to cheapen Imperial routes by subsidies with the object of diverting existing or potential trade from foreign sea or land routes which happen to be the natural and therefore the more economical routes, would be an unwarrantable use of public money, a commercial policy adopted for political purposes and involving methods liable to those abuses which notoriously beset every form of bounty." An English shipping journal says, with a considerable measure of truth, that we in Canada are apt to imagine when we have given a handsome subsidy to a railway or steamship project that nothing more remains to be done—the work is accomplished. In this instance, however, we must regard the subsidy as a "secondary consideration," and be able to demonstrate at the outset that the project is a "sound and reasonable commercial proposition;" which, it thinks, we shall have some difficulty in doing, if our intention is to make

Halifax the year-round port and to employ *Lusitanias*. Other English friends recommend us to keep the subject as far as possible out of politics.

British authorities agree that it would be unwise to put 25-knot steamers on the Pacific, between Vancouver and Australasia, or indeed to go to any large extra expense for that route, till it is known what changes in transportation on that ocean are likely to result from the construction of the Panama Canal. Sir John Colomb would refuse any Imperial subsidy for the line between Canada and Liverpool till we in Canada make up our minds to contribute to the upkeep of the British Navy. No one in England has a good word for the placing of 25-knot vessels between Vancouver, Japan and China; in fact, that part of the scheme may be regarded as dead. It is important to note also that since it entered into a ten-year contract for the conveyance of mails and passengers by tolerably fast steamers from England, the Government of the Australian Commonwealth has apparently backed out of its intention to contribute to the subsidy for the proposed 25-knot line from Vancouver. In Australia, no less than in England, the opinion expressed by Sir Thomas Shaughnessy, President of the Canadian Pacific Railway, that sentiment had better be excluded from the consideration of all projects such as this, which in the end must stand or fall according to their commercial soundness or unsoundness, is beginning to be accepted even by those Imperialists who formerly were disposed to let sentiment run away with their reasoning.

The Ottawa Government must therefore be convinced by this time that it is easier to talk of a new All-Red route with 25 knots than to establish it. Yet whatever may befall that scheme, the necessity of improving the St. Lawrence route will remain. That is one of the most pressing Canadian questions of the day, and, notwithstanding the heavy expenditure involved, Parliament should lose no time in pushing it to a satisfactory conclusion.